U.S. Appl. Serial No 10/699,543

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LISTING OF CLAIMS

JUL 17 2007

- 1. (Canceled)
- 2. (Canceled)
- 3. (Canceled)
- 4. (Canceled)
- 5. (Currently Amended) A method for speech control of interactive applications, comprising the steps of:

providing at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;

providing a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:

a set of items, wherein each item comprises a word or phrase that can be spoken;

an associated set of attributes that provide more information about said item;

an associated set of attributes that provide more information about said grammar as a whole; and

optionally, a name of a grammar that must be imported to complete an utterance; and

providing a chained command attribute which indicates that an utterance in an item is a part of a chained command;

wherein speech commands are chained together to provide one-step access to information or application functionality.

(Original) The method of Claim 5, wherein at least one grammar comprises a command grammar for utterances that are used to control said application.

U.S. Appl. Serial No 10/699,543

(Original) The method of Claim 5, wherein at least one grammar comprises 7. an information-type specific grammar comprising multiple alternatives for a single piece of information.

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- 8. (Original) The method of Claim 7, wherein said information-type specific grammar is linked to another grammar via a unique utterance (keyword) that distinguishes an information type from any other information type.
- 9. (Original) The method of Claim 8, wherein said information-type specific grammar comprises an attribute that specifies a keyword; and wherein items in said information-type specific grammar comprise an attribute that identifies said item's information type...
- 10. (Canceled)
- 11. (Original) A method for speech control of interactive applications, comprising the steps of:

providing a recognizer;

providing a command processor;

providing a context manager;

providing a data source;

said context manager communicating with said recognizer to activate appropriate grammars for a current context;

said user speaking a command;

said recognizer returning said spoken command and all associated attributes to said command processor;

said command processor accessing said data source, as necessary, to carry out said command;

said command processor updating a current context; and outputting results of said command.

12. (Original) A method for linking grammars into a hierarchy, comprising the steps of:

defining an utterance that links two grammars in two parts:

U.S. Appl. Serial No 10/699,543

wherein a first part is a keyword, for information-type specific grammars, or a command for command grammars; and

wherein contents of said grammar-to-be-linked are imported to include all alternatives for a second part of said utterance.

- 13. (Currently Amended) The method of Claim <u>12_13</u>, wherein said grammars link information-type specific information either explicitly or implicitly.
- 14. (Original) The method of Claim 13, wherein an application predetermines a navigation path and link in all appropriate grammars.
- 15. (Original) The method of Claim 13, wherein an application relies on type attributes returned to determine which options to make available to a user next.
- 16. (Currently Amended) An apparatus for speech control of interactive applications, comprising:

at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;

a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:

a set of items, wherein each item comprises a word or phrase that can be spoken;

an associated set of attributes that provide more information about said item;

an associated set of attributes that provide more information about said grammar as a whole; and

optionally, a name of a grammar that must be imported to complete an utterance; and

a chained command attribute which indicates that an utterance in an item is a part of a chained command;

wherein speech commands are chained together to provide one-step access to information or application functionality.

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U.S. Appl. Serial No 10/699,543

17. (Original) The apparatus of Claim 16, wherein at least one grammar comprises a command grammar for utterances that are used to control said application.

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- 18. (Original) The apparatus of Claim 16, wherein at least one grammar comprises an information-type specific grammar comprising multiple alternatives for a single piece of information.
- 19. (Original) The apparatus of Claim 18, wherein said information-type specific grammar is linked to another grammar via a unique utterance (keyword) that distinguishes an information type from any other information type.
- 20. (Original) The apparatus of Claim 19, wherein said information-type specific grammar comprises an attribute that specifies a keyword; and wherein items in said information-type specific grammar comprise an attribute that identifies said item's information type.
- 21. (Canceled)
- 22. (Currently Amended) The apparatus of Claim 16, further comprising: An apparatus for speech control of interactive applications, comprising:
- at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;
- a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:
 - a set of items, wherein each item comprises a word or phrase that can be spoken;
 - an associated set of attributes that provide more information about said item;
 - an associated set of attributes that provide more information about said grammar as a whole;
- a name of a grammar that must be imported to complete an utterance; and
- means for processing a "more like this" command for using a currently selected item type to decide where to look for information that a user wants.

U.S. Appl. Serial No 10/699,543

23. (Original) An apparatus for speech control of interactive applications, comprising:

a data source;

a context manager, said context manager communicating with a recognizer to activate appropriate grammars for a current context;

a recognizer, said recognizer returning a spoken command and all associated attributes to a command processor;

a command processor, said command processor accessing said data source, as necessary, to carry out said spoken command, said command processor updating a current context and outputting results of said command.

24. (Original) The apparatus of Claim 23, wherein said spoken command effects any of:

a targeted search;

an exploratory search; and

dynamic application generation.

25. (Original) An apparatus for linking grammars into a hierarchy, comprising:

at least one speech-controlled application that uses a set of commands initiated by either speech or, optionally, by input from a device;

a set of grammars, composed of utterances, in which speech commands are specified, wherein said grammars comprise:

a set of items, wherein each item comprises a word or phrase that can be spoken;

an associated set of attributes that provide more information about said item;

an associated set of attributes that provide more information about said grammar as a whole; and

wherein an utterance links two grammars in two parts:

wherein a first part is a keyword, for information-type specific grammars, or a command for command grammars; and

wherein contents of said grammar-to-be-linked are imported to include all alternatives for a second part of said utterance.

U.S. Appl. Serial No 10/699,543

- 26. (Original) The apparatus of Claim 25, wherein said grammars link information-type specific information either explicitly or implicitly.
- 27. (Original) The apparatus of Claim 25, wherein an application predetermines a navigation path and link in all appropriate grammars.
- 28. (Original) The apparatus of Claim 25, wherein an application relies on type attributes returned to determine which options to make available to a user next.
- 29. (Original) The apparatus of Claim 25, further comprising:

 means for processing a "more like this" command for using a currently selected item type to decide where to look for information that a user wants.
- 30. (Original) An apparatus for dynamically constructing a user interface for a speech-controlled application, comprising:
- a plurality of grammars comprising a structure of speech commands for said application;
 - said grammars further comprising means for indicating when commands are chained;
- means for parsing said grammars to obtain said structure; and means for using said parsed structure to auto-generate at least some of said user interface for said application.